

CLAIMS

The invention claimed is:

1. A polling system for vending machines, the system comprising:
at least one vending machine comprising an electronic control unit which tracks information pertinent to the at least one vending machine, and a wireless transceiver in communication with the electronic control unit and operative to send the pertinent information wirelessly to an interrogation unit when requested by the interrogation unit.
2. The system of claim 1 further comprising the interrogation unit.
3. The system of claim 2 wherein the interrogation unit is mounted on a vehicle.
4. The system of claim 2 wherein the interrogation unit is a handheld unit.
5. The system of claim 1 wherein the tracked information comprises an inventory level of the at least one vending machine.
6. The system of claim 1 wherein the tracked information comprises money deposits of the at least one vending machine.
7. The system of claim 1 wherein the tracked information comprises maintenance status of the at least one vending machine.
8. The system of claim 1 wherein the tracked information comprises security information of the at least one vending machine.
9. The system of claim 2 wherein the interrogator and the transceiver on the at least one vending machine communicate using radio frequency (RF) signals and have a bi-directional read range limit in a range of about 300 to 500 feet.
10. A vending machine system comprising:

at least two vending machines each having a respective wireless transceiver operative to transmit respective status information about its associated vending machine; and

a consolidation unit configured to receive the wirelessly transmitted status information, the consolidation unit having an interface with an established communications network.

11. The system of claim 10 wherein the established communications network comprises a public switched telephone network.

12. The system of claim 10 wherein the respective wireless transceivers communicate with the consolidation unit using a radio frequency signal and have a bi-directional read range limit in a range of about 200 to 500 feet.

13. The system of claim 10 wherein the at least two vending machines and the consolidation unit form a cluster and wherein the system further comprises a plurality of clusters and a central data collection center in communication with respective consolidation units of each cluster.

14. The system of claim 13 wherein the established communications network comprises an RF data link to the central data collection center.

15. The system of claim 10 wherein the established communications network comprises a cellular network.

16. The system of claim 10 wherein the established communications network comprises a packet-switched network.

17. A vending network comprising:
a plurality of vending machines each including a wireless transceiver operative to transmit vending machine information to and from other nearby vending machines forming a wireless relay network.

18. The network of claim 17 further comprising a consolidation unit positioned within range of the wireless relay network of vending machines, the consolidation unit configured to receive the wirelessly transmitted vending machine information and having an interface with an established communications network.

19. A method of polling a vending machine having a wireless transceiver, the method comprising:

 sending a first wireless signal to the wireless transceiver of the vending machine, the first signal soliciting a status response from the vending machine; and

 receiving a second wireless signal from the transceiver of the vending machine, the second signal including the status response which includes information pertaining to a status of the vending machine.

20. The method of claim 19 wherein the first and second signals are RF signals.

21. The method of claim 19 wherein the first and second signals are infrared signals.

22. The method of claim 19 wherein the information comprises a description of an inventory level of the vending machine.

23. The method of claim 19 wherein the information comprises a description of money deposits for the vending machine.

24. The method of claim 19 wherein the information comprises a description of a maintenance status of the vending machine.

25. The method of claim 19 wherein the information comprises a description of a security status of the vending machine.